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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,699	12/04/2001	Walter Heinrich Demmer	TI-29005	7266
23494	7590	02/07/2005	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265				KOSTAK, VICTOR R
ART UNIT		PAPER NUMBER		
2614				

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*On*

### Office Action Summary

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/004,699	DEMMER, WALTER HEINRICH	
	<b>Examiner</b>	<b>Art Unit</b>	
	Victor R. Kostak	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 26 October 2004.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 8-16,23 and 24 is/are allowed.

6) Claim(s) 1-7 and 17-22 is/are rejected.

7) Claim(s) 2 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

1. Applicant's arguments filed on 10/26/04 have been fully considered but they are not persuasive, explained as follows.

Applicant says that he disagrees with the examiner's rejection of the claims but does not give any reason why the examiner's rejection is not convincing or valid. Because there is only a statement of disagreement, the previous rejection accordingly still applies and is repeated from the last Office action below.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-7 and 17-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over McGrath.

The system of McGrath (noting particularly Figs. 1, 2 and 6) involves converting a (non-specific) signal from analog to digital at an optimum rate by arranging low-order filtering (integration) elements having non-linear coefficients (e.g. col. 3 lines 10-31), resulting in a scaled output signal relative to the input signal (note further col. 5 lines 24-49). Vectors are selected and individually model-tested in order to determine the optimum coefficient values, ultimately to generate the ideal output sample rate and signal-to-distortion ratio (SDR), the coefficients being non-linear (col. 10 lines 19-32).

Although McGrath does not explicitly refer to the vectors as positional vectors, it would have been obvious to one of ordinary skill in the art to consider the vector factor as providing

positioning information (from the input to the output) since each vector is selected to determine the appropriate coefficients used to convert the sample rate to its scaled output form, thereby meeting claims 17 and 19.

As for claim 1, since McGrath does not specify nor exclude the type of signal to which practical application is to be given, it would have been obvious to one of ordinary skill in the art to apply the sampling rate conversion to any signal capable of being thus modified, in order to generate an optimally converted signal thereby exhibiting the best characteristics. The disclosed circuit arrangement is not dictated by the specific type of signal applied thereto. (It is also pointed out that claim 1 recites the interpolation for video or image signals, indicating intended use).

As for claims 3, 18, 20 and 21, McGrath uses tables to access the non-linear coefficients based on the vector selected (noting Tables 3.2, 3.3; col. 32 lines 20-27 discussing look-up tables and alternative methods).

Regarding claim 4, it would have been obvious (if not inherent) to use a memory to store the initial input signal since stored coefficient values are to be selected and applied thereto in the scaling process.

As for claim 5, temporal scaling is used in the sample rate conversion/selection process.

As for claims 6 and 22, the filter units involve, in one instance shown in Table 3.2, three coefficients per case.

Considering claim 7, it would have been obvious to use a different amount of filter units depending on the degree or accuracy of scaling desired, which would incorporate vectors factors.

(McGrath discusses the range of coefficients from which certain ones are selected: col. 10 lines 19-26).

3. Claims 2, 8-16, 23 and 24 remain allowable over the prior art.

It is noted that claim 2 was indicated as being objected to on the PTOL-326 form, but not specified as such in the body of the rejection. The examiner regrets that oversight.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor R. Kostak whose telephone number is 703 305-4374. The examiner can normally be reached on Monday - Friday from 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 703 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this final action should be mailed to:**

Box AF  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**Or faxed to:**

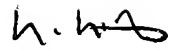
**(703) 872-9306 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 308-HELP.

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Art Unit: 2614

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Victor R. Kostak  
Primary Examiner  
Art Unit 2614

VRK